

What is claimed is:

1. An image processing apparatus for adjusting a gradation range of an input image, comprising:

photographing condition estimation means for estimating a photographing condition of the input image; and

5 gradation correction means for performing gradation correction on the input image on the basis of the photographing condition to adjust the gradation range to a predetermined gradation range.

2. An image processing apparatus according to claim 1, wherein the photographing condition estimation means estimates a photographing condition on the basis of at least one piece of information of focal information, photometric information,  
5 zoom position information, multi-spot photometric information, line-of-sight input information, and strobe flash information.

3. An image processing apparatus according to claim 1, wherein the photographing condition estimation means comprises:

focal position estimation means for estimating at least three types of focal positions including a scenic photographing operation, a portraiture photographing

operation, and a close-up photographing operation from the  
5 focal information;

object distribution estimation means for estimating at  
least three types of object distributions of an entire screen,  
a center focus, and a central portion from the photometric  
information; and

10 integration means for integrally estimating a  
photographing condition by combining the focal position  
estimated by the focal position estimation means and the  
object distribution estimated by the object distribution  
estimation means.

4. An image processing apparatus according to claim 1,  
wherein the gradation correction means comprises:

selection means for selecting an arrangement of a weight  
coefficient on the basis of the photographing condition;

5 characteristic amount calculation means for calculating a  
characteristic amount with respect to the input image;

histogram generation means for generating a weighting  
histogram related to the characteristic amount on the basis of  
the arrangement of the weight coefficient;

gradation conversion curve calculation means for  
calculating a gradation conversion curve on the basis of the  
histogram; and

conversion means for performing gradation conversion by  
5 using the gradation conversion curve.

5. An image processing apparatus according to claim 1, wherein the gradation correction means adjusts a gradation range by reducing the gradation range.